Interim Workaround Procedures for Build 8.0 ORDA Software Issue

Background

Sites have recently experienced multiple receiver and transmitter alarms with Build 8.0. The seemingly unrelated alarms resulted from a single failure in signal processor communications. The signal processor communication failure may result after a HCI failure or a system reboot.

The root cause is the RCP8 /tmp/SUIS.log fills the /tmp directory. Once the /tmp directory is full, the HCIS process may crash, possibly followed by the SUIS process crash. When the SUIS process crashes, it does not allow any HCI connections. Because of a HCIS bug, the HCIS process can not be restarted automatically.

If the RCP8 /tmp directory is full, a RDASC restart or reboot can cause false alarms, e.g., signal processor communications, calibration, transmitter or a combination of various false alarms. The false alarms are caused because the /tmp directory is used during configuration of the signal processor. Once in this state, the user must re-install software with a limited restore to correct the false alarm problem.

The ROC and the ORDA contractor are working on providing a correction for this problem by a software release.

Daily Workaround Procedure (See Caution)

A work-around to prevent the /tmp directory from filling is to restart the RDA daily from the MSCF. This can be done by using the RPG HCI on the MSCF or the RPG. The steps are:

1. Click on Control in the RDA box,
2. Select the Restart button in the RDA State box
3. Answer yes to the popup.

When the RDA is restarted, the SUIS.log is recreated, eliminating the previous log. This will insure the /tmp directory does not get full.

CAUTION: Sites need to ensure that the /tmp directory is not full the first time a RDASC restart is executed by deleting the /tmp directory. For NWS sites, the procedure can be performed from the WFO MSCF or RPG. For DOD and FAA radars, it is necessary for the MSCF operator to coordinate with the DOD and FAA technicians to visit the radar site prior to the MSCF operator performing a restart. After the RDA visit, the MSCF operator can restart the RDA daily without requiring the DOD or FAA technicians to revisit the site.

An operator performing the **Daily Workaround Procedure** from the MSCF will prevent the RCP8 /tmp directory from filling up. There is enough space in the RCP8 /tmp directory to allow skipping the daily RDA restart procedure for a day or two, in the event of severe weather or an RDA restart is undesirable for operational reasons. The ROC recommends that the **Daily Workaround Procedure (**RDA restart) from the MSCF be added to the daily shift checklist.

Procedures for Deleting /tmp Directory

NWS Single/Redundant Channel Sites:
(Note: NWS Redundant- must be performed on each channel)

To delete the /tmp directory, NWS sites can ssh into the RDA from either the MSCF or RPG. The steps are:

1. On the RPG HCI, click on Control in the RDA box,
2. Select the Standby button in the RDA State box
3. Answer yes to the popup.
4. Open a terminal window by right clicking in the CDE background menu, to get the "Workspace Menu" popup.
5. In this menu popup, select the "Tools" menu to open the "Tools" menu popup
6. Click the "Terminal" menu item
7. At the Terminal command prompt, enter:
   For NWS Single Channel and NWS Redundant Channel 1, enter:
   ssh operator@rda1<Return>

   For NWS Redundant Channel 2, enter**:**
   ssh operator@rda2<Return>
8. A message will appear from the ssh connection if this is the first time the operator has ssh to RDA. The message states:
   "The authenticity of host rda1 (IP.IP.IP.IP) can't be established.
   RSA key fingerprint is *.*.*.*.*.*.*.*.*.*.*.*.*.*.*.*. Are you sure you want to continue connecting (yes/no)?"
9. Answer "**yes**" to this question. The full word "**yes**" must be the response, not just a"**y**". The * in the fingerprint will be 2 hexadecimal numbers.
10. The warning banner will scroll across the screen
    "**WARNING**WARNING…."
    Followed by operator@rda1's password:
11. Enter the password.
12. The command prompt for the RDA will appear:
    operator@rcpg/home/operator$
13. Enter **rm /tmp/SUIS.log**
14. Enter **exit**
15. At the MSCF, close the terminal window.
16. Begin the **Daily Workaround Procedure** (RDA restart procedure) to keep /tmp from becoming full.
17. When the RDA has restarted, select the Operate button in the RDA State box

18. Answer yes to the popup.

DoD/FAA Sites

For DOD or FAA sites that have to travel to the RDA, the steps are:
1. At the RPG, on the RPG HCI, click on Control in the RDA box,
2. Select the Standby button in the RDA State box
3. Answer yes to the popup.
4. At the RDA, on the kvm, make sure 1 is selected. The indicator near the 1 will be lit when this is the case. This selects the RCP8 versus the RVP8. If not selected, press 1 to select it.
5. Press the combination "ctrl+alt+F2" at the same time.
6. This will display what is called "tty2".
7. The WARNING banner will be displayed, then a login prompt will be at the bottom of the screen.
8. At the login prompt, enter **operator**
9. A prompt "Password:" will appear. Enter the operator password.
10. The command prompt will appear
    operator@rcpg:/home/operator$
11. At the prompt, enter **rm /tmp/SUIS.log**
12. The prompt will reappear.
13. Enter: **exit**
14. Then press the combination "ctrl+alt+F7" at the same time.
15. This will return the X-windows screen with the HCI.
16. At the RPG on the RPG HCI, click on Control in the RDA box,
17. Select the Restart button in the RDA State box,
18. Answer yes to the popup.
19. When the RDA has restarted, select the Operate button in the RDA State box
20. Answer yes to the popup.
21. Contact the MSCF operator. Have them incorporate the **Daily Workaround Procedure** (RDA restart) into their daily routine starting the next day, to keep the /tmp directory from becoming full.

FAA RMS RDA Restart Procedures

For FAA RMS systems
1. Dial the RMS using PC anywhere
2. Open a putty terminal to the Inactive/Controlling Channel using the appropriate IP address:
   Channel 1 = 192.168.88.134
   Channel 2 = 192.168.88.234
3. Perform Steps 7-11 of the **DOD/FAA Sites** procedures above.
4. Coordinate a Channel Change with the MSCF operator. The channel change can be performed either via EMS or by the MSCF operator.
5. Open a putty terminal to the new Inactive/Controlling Channel using the appropriate IP address:

Channel 1 = 192.168.88.134
Channel 2 = 192.168.88.234

6. Perform Steps 7-11 of the **DOD/FAA Sites** procedures above.
7. Contact the MSCF operator. Have them immediately incorporate the **Daily Workaround Procedure** (RDA restart) into their daily routine.
8. Continue by executing DOD and FAA RDA sites steps 8-14.